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Filed : November 3, 2003

REMARKS

The foregoing amendments and the following remarks are responsive to the July 25, 2006 Office Action. Claims 1-10, 14, and 15 are cancelled without prejudice, Claims 11, 18, and 19 are amended, and Claims 12, 13, 16, and 17 remain as originally filed. Thus, Claims 11-13 and 16-19 are presented for further consideration. Please enter the amendments and reconsider the claims in view of the following remarks.

Response to Acknowledgement of Claim Election

Applicant thanks the Examiner for acknowledging the election of Claims 11-19. Applicant has cancelled Claims 1-10 without prejudice, reserving the right to pursue allowance of these claims in a divisional application.

Response to Rejection of Claims 11-19 Under 35 U.S.C. § 112

In the July 25, 2006 Office Action, the Examiner rejects Claims 11-19 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has cancelled Claims 14 and 15 without prejudice, reserving the right to pursue allowance of these claims in a continuation application.

“accelerating the production of a vaccine”

The Examiner states that the phrase “accelerating the production of a vaccine” of Claims 11-19 does not particularly point out and distinctly claim the subject matter. As explained in the “Declaration of Jackson Streeter, M.D. Pursuant to 37 C.F.R. § 1.132” submitted herewith, Applicant submits that this phrase would be understood by a person skilled in the art of vaccine production. Furthermore, Applicant submits that this phrase provides sufficient clarity and particularity to satisfy the notice function required by 35 U.S.C. § 112, second paragraph, by providing “clear warning to others as to what constitutes infringement of the patent.” M.P.E.P. § 2173.02, Rev. 5, August 2006, page 2100-211. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection to Claims 11-13 and 16-19 and pass these claims to allowance.

“useful in production of a vaccine”

The Examiner states that the phrase “useful in a vaccine” of Claims 11-19 does not particularly point out and distinctly claim the subject matter. Applicant has amended Claim 11 to

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recite "providing an in vitro cell culture comprising cells useful in production of a vaccine." As explained in the "Declaration of Jackson Streeter, M.D. Pursuant to 37 C.F.R. § 1.132" submitted herewith, Applicant submits that the phrase "providing an in vitro cell culture comprising cells useful in production of a vaccine" would be understood by a person skilled in the art of vaccine production. Furthermore, Applicant submits that this phrase provides sufficient clarity and particularity to satisfy the notice function required by 35 U.S.C. § 112, second paragraph, by providing "clear warning to others as to what constitutes infringement of the patent." M.P.E.P. § 2173.02, Rev. 5, August 2006, page 2100-211. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection to Claims 11-13 and 16-19 and pass these claims to allowance.

"the treatment"

The Examiner states that there is insufficient antecedent basis for the phrase "the treatment" recited in Claims 18 and 19. Applicant has amended Claims 18 and 19 to omit the phrase "the treatment." Applicant submits that amended Claims 18 and 19 satisfy the requirements of 35 U.S.C. § 112, second paragraph, and Applicant respectfully requests that the Examiner to withdraw the rejection to Claims 18 and 19 and pass these claims to allowance.

Response to Rejection of Claims 11-19 Under 35 U.S.C. § 102(b)

U.S. Patent No. 6,063,108

In the July 25, 2006 Office Action, the Examiner rejects Claims 11-19 as being anticipated by U.S. Patent No. 6,063,108 ("Salansky"). Applicant has cancelled Claims 14 and 15 without prejudice, reserving the right to pursue allowance of these claims in a continuation application.

As currently amended, Claim 11 recites (emphasis added):

11. A method for accelerating the production of a vaccine by an in vitro cell culture, comprising:

providing an in vitro cell culture comprising cells useful in production of a vaccine; and

delivering an effective amount of electromagnetic energy to the in vitro cell culture, wherein delivering the effective amount of electromagnetic energy includes delivering electromagnetic energy having a power density of at least about 0.01 mW/cm² and a wavelength of about 780 nm to about 840 nm to the cells in the in vitro cell culture; wherein the delivering the electromagnetic energy results in the enhancement or improvement of the in vitro cell culture.

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Applicant submits that Salansky does not disclose all the limitations of amended Claim 11. As explained in the "Declaration of Jackson Streeter, M.D. Pursuant to 37 C.F.R. § 1.132" submitted herewith, Salansky at column 27, lines 19-26 describes a method of in vivo light irradiation therapy of a patient in which the patient's immune system is activated to produce various compounds, including immunoglobulins. Applicant submits that while Salansky describes activating the patient's immune system, Salansky does not disclose "delivering an effective amount of electromagnetic energy to the in vitro cell culture, ... wherein the delivering the electromagnetic energy results in the enhancement or improvement of the in vitro cell culture," as recited by amended Claim 11. Therefore, Applicant submits that amended Claim 11 is patentably distinguished over Salansky.

Each of Claims 12 and 16-19 depends from amended Claim 11, and Claim 13 depends from Claim 12. Therefore, each of Claims 12, 13, and 16-19 includes all the limitations of amended Claim 11 as well as other limitations of particular utility, so Claims 12, 13, and 16-19 are also patentably distinguished over Salansky. Applicant respectfully requests that the Examiner withdraw the rejection of Claims 11-13 and 16-19 and pass these claims to allowance.

Van Breugel et al.

In the July 25, 2006 Office Action, the Examiner rejects Claims 11-19 as being anticipated by van Breugel et al., Lasers in Surgery and Medicine, 1992, Vol. 12, pages 528-537 ("van Breugel"). Applicant has cancelled Claims 14 and 15 without prejudice, reserving the right to pursue allowance of these claims in a continuation application.

Applicant submits that van Breugel does not disclose all the limitations of amended Claim 11. For example, van Breugel does not disclose "providing an in vitro cell culture comprising cells useful in production of a vaccine," as recited by amended Claim 11. As explained in the "Declaration of Jackson Streeter, M.D. Pursuant to 37 C.F.R. § 1.132" submitted herewith, the human fibroblast cells disclosed by van Breugel produce collagen and are not useful in production of a vaccine. Applicant submits that this limitation can not be dismissed as an intended use, because the human fibroblast cells disclosed by van Breugel can not be used for the purpose of producing a vaccine. Therefore, "useful in production of a vaccine" is a structural limitation of the cells of the in vitro cell culture which is not disclosed by van Breugel.

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Furthermore, Applicant submits that van Breugel does not disclose "delivering electromagnetic energy having ... a wavelength of about 780 nm to about 840 nm to the cells in the in vitro cell culture," as recited by amended Claim 11. Therefore, Applicant submits that amended Claim 11 is patentably distinguished over van Breugel.

Each of Claims 12 and 16-19 depends from amended Claim 11, and Claim 13 depends from Claim 12. Therefore, each of Claims 12, 13, and 16-19 includes all the limitations of amended Claim 11 as well as other limitations of particular utility, so Claims 12, 13, and 16-19 are also patentably distinguished over van Breugel. Applicant respectfully requests that the Examiner withdraw the rejection of Claims 11-13 and 16-19 and pass these claims to allowance.

Summary

For at least the foregoing reasons, Applicant submits that Claims 11-13 and 16-19 are in condition for allowance, and Applicant respectfully requests such action.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: 1/25/07

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